

Simple GIS
in documentation and description:
Google Earth
for the *visualization* and analysis of
spatially-themed language use



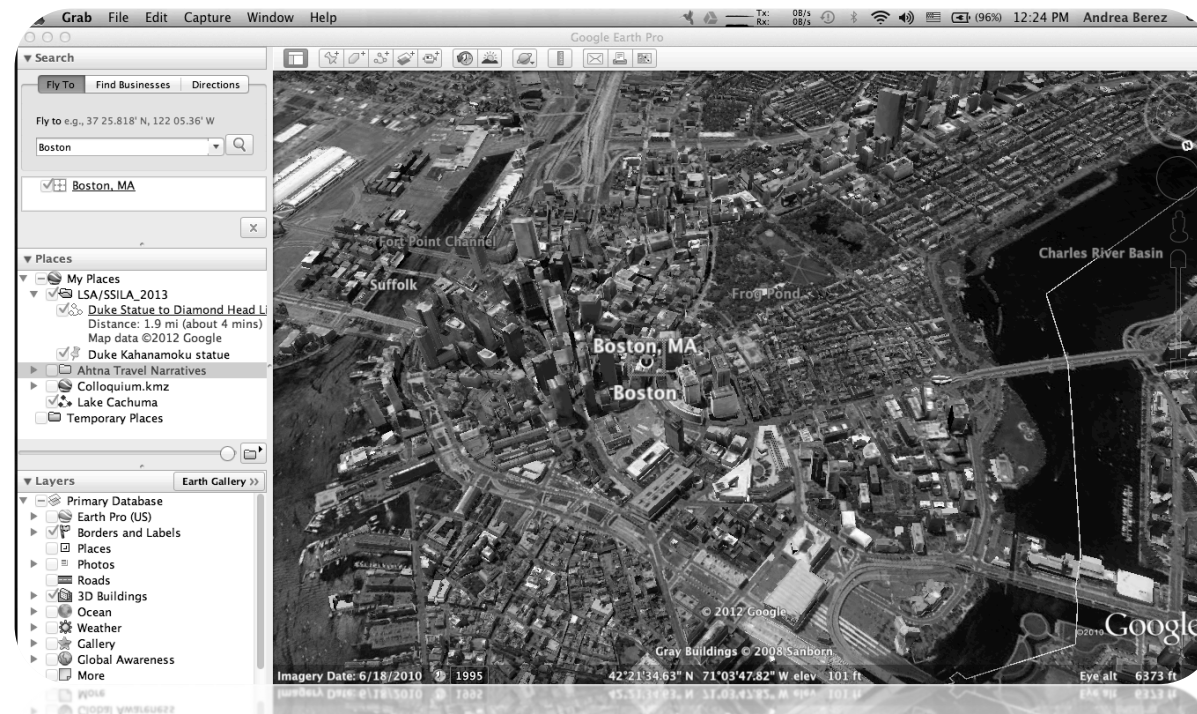
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To explain how Google Earth (GE) can be used for *visualization* of geographic information to assist analysis and documentation.



- GE's path feature
- Ahtna case study
- Other GE projects
- Demo: making a GE path



SSILA 2013 | Boston

The GE path feature



visualization of a route
between any points



“Fly-thru” effect

- Customize distance
from ground



Basic feature of GE



Let's visit Honolulu.



GIS in linguistics is growing, e.g.:



- communities eg Veselinova & Booza, right)
- Dynamic: Migration, contact



- Associating place to narratives about TEK, local history, photos...



- Comparative work
- Spatial grammar, lexicon, semantics



Why GIS *visualization* in documentation & analysis?

- Landscape is a 3D experience. Close to “being there.”
- Immediate. Fun.
- Many aspects of traditional cultures tied to location.
- Arguable effect of landscape on development of grammar and lexicon.
- Case study: Ahtna discourse about overland travel.

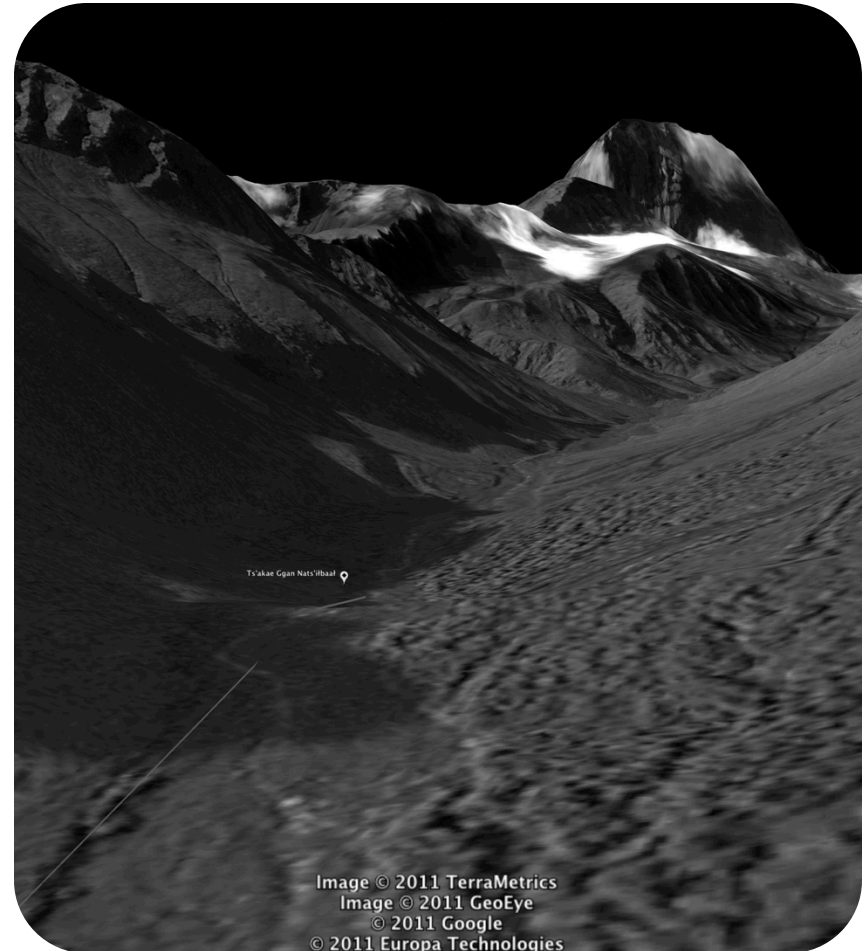
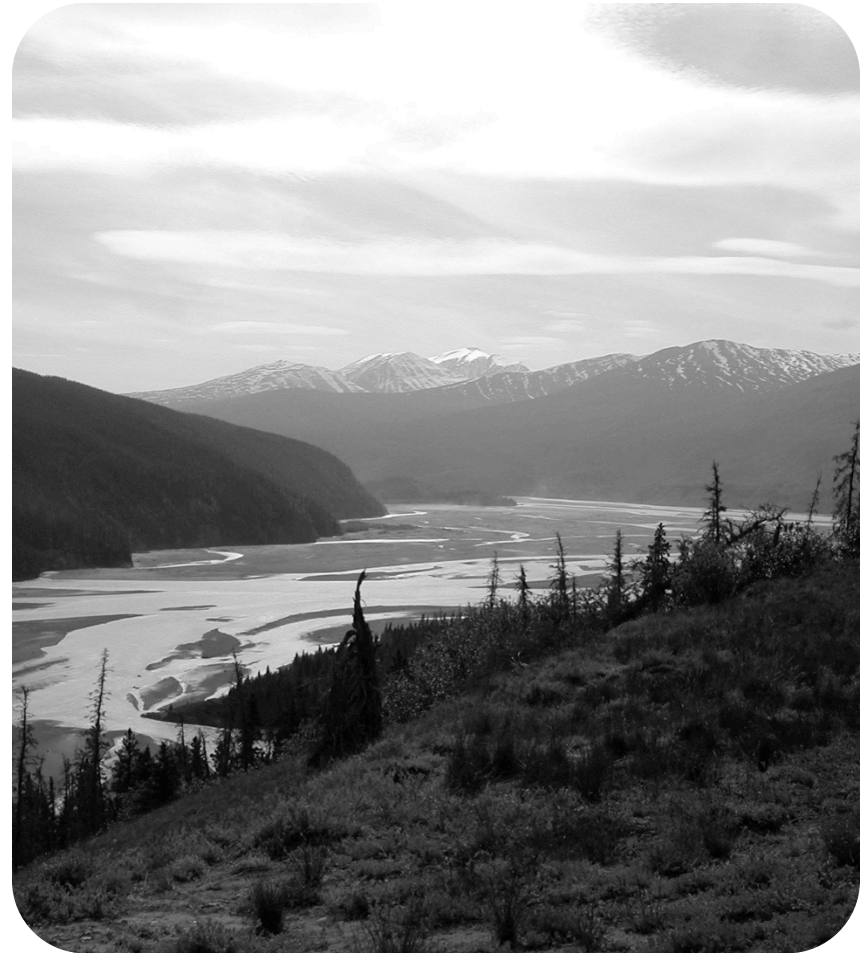


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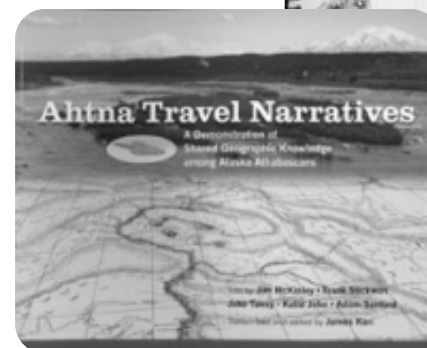
Study of directional morphology in discourse

- Polysynthetic, many precise forms possible (logically 400+)
 - Stem: riverine
 - Prefixes: distal vs medial vs proximal
 - Suffixes: area vs point, allative vs ablative
- How are these used to describe overland travel?



The Ahtna data

- Travel narratives
 - “Virtual tours” of travel on hunting/trapping routes
 - Sequential named locations connected by spatial grammar
- Kari’s database of Ahtna place names with lat-lon coordinates



Method

- Uploaded placename coordinates into GE
- Created GE paths along travel routes (rivers)
- Used geodata to assist with analysis
 - Distances
 - Elevation
- Let's look briefly.



Findings: Prefixes



nearly as precise as
previously thought

- Distance is not single
motivator

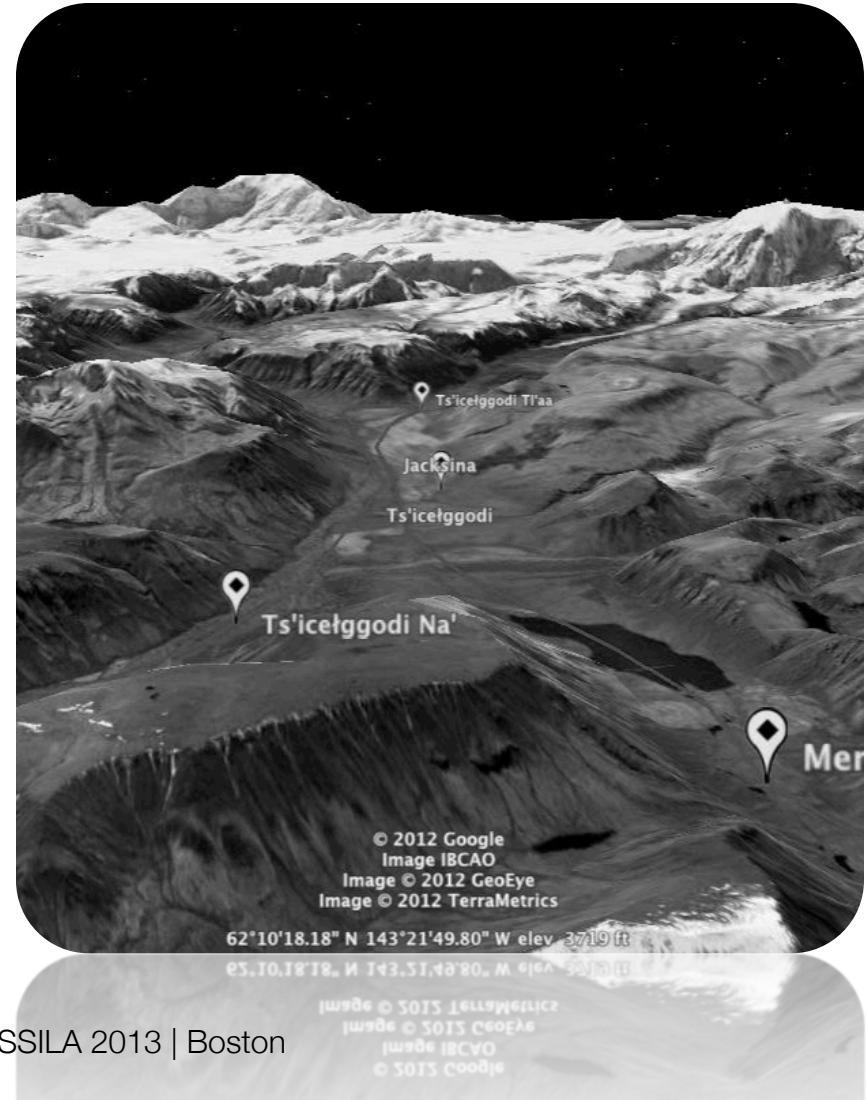


Prefixes bleaching,
becoming part of stem



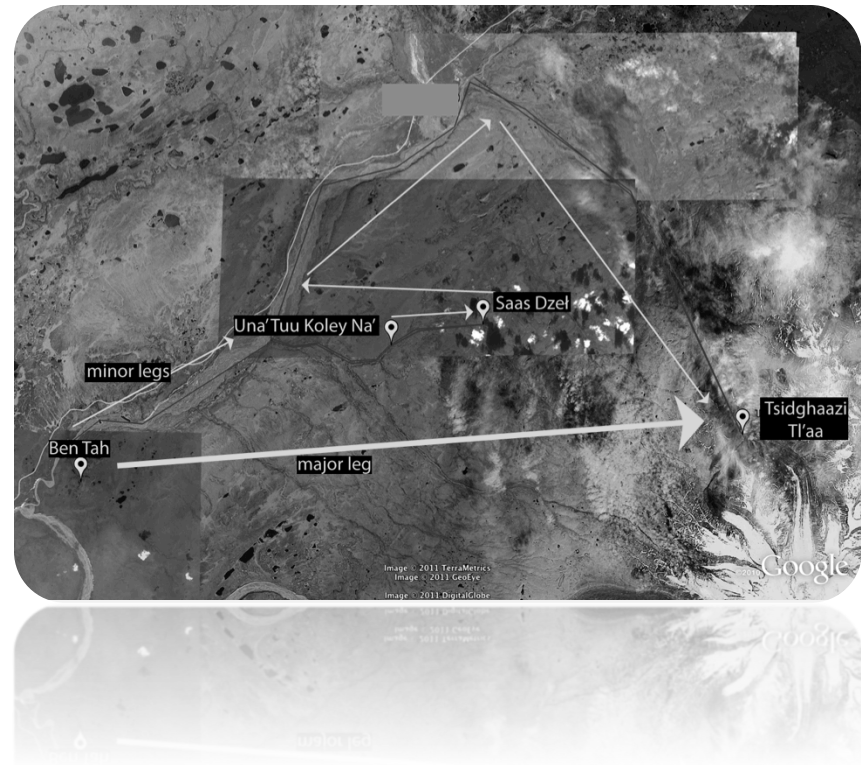
Semantics of deixis ripe
for investigation

- Effort of travel
- Affective deixis
- Etc...



Findings: Suffixes

- Areal and punctual suffixes build discourse episodes
 - Punctual suffix layers mini-episodes of point-to-point journeys
 - Areal suffix indicate larger episodes and the ultimate destination of the journey



Mojave (CA-AZ-NV)

- Colorado River as source of TEK
Penfield, in progress)
- Plans to map river
 - With narratives about land use at waypoints
- Imagery > electronic gaming for learning
 - TEK
 - Mojave language
- Part of larger curriculum development



Manang Languages (Nepal)

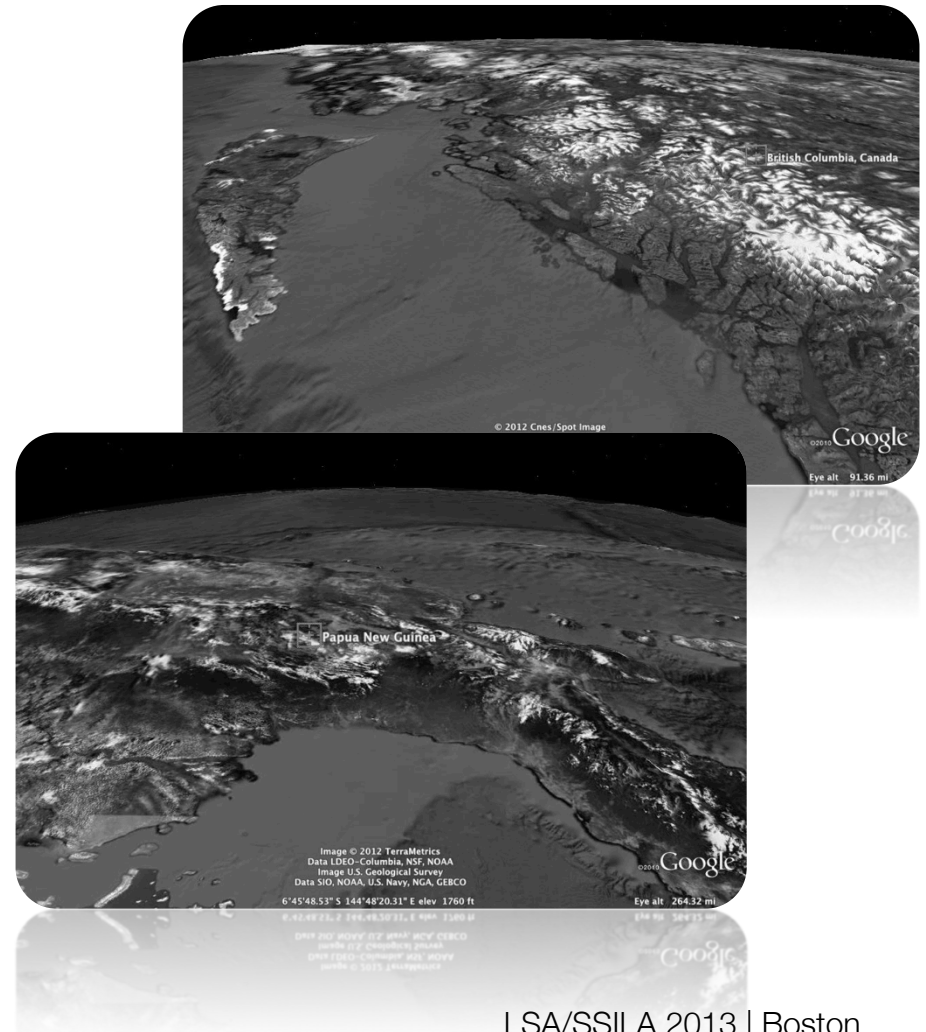
- Interactive audio-visual atlas
- GE interface online, hosted at SIUE.
- Currently socioling interviews from 2012, more to come

- See Kristine Hildebrandt's poster tomorrow morning, CELP workshop
- www.mananglanguages.org/



Linguistic diversity in PNG & British Columbia

- Comparing “hot spots” of great diversity in terms of
 - Terrain
 - Travel methods
 - Travel routes
 - Resource use
 - Trading



Summary:

Why GE for visualization?

- Free, easy, widely available
- Excellent for projects with low data load
- Good quality visualization
 -
 -
 -
 - version
- For Ahtna:
 - Complex narratives “revealed themselves” only after place names were mapped



Brief Tutorial:
Google Earth Paths

Thank you.

Special thanks to

-  Pat Shaw
-  Natalie Diaz
-  Susan Penfield
-  Kristine Hildebrandt
-  Jim Kari